

Claim Listing

Claim 1 (currently amended). An article of manufacture comprising a hydrophobic polymeric substrate having an adherent, firmly attached hydrophilic coating of a graft copolymer of solubilized starch, wherein said hydrophobic polymeric substrate is a material selected from the group consisting of polyethylene, polypropylene, polystyrene, polyester, and polyamide.

Claim 2 (original): The article of Claim 1, wherein said graft copolymer is starch polyacrylonitrile.

Claim 3 (original): The article of Claim 1, wherein said solubilized starch is totally solubilized.

Claim 4 (original): The article of Claim 1, wherein said solubilized starch is jet cooked starch.

Claim 5 (original): The article of Claim 1, wherein said solubilized starch consists essentially of starch or cereal flour.

Claim 6 (currently amended): ~~The article of Claim 1~~
An article of manufacture comprising a hydrophobic
polymeric substrate having an adherent, firmly attached
hydrophilic coating of a graft copolymer of solubilized
starch, wherein said hydrophilic coating consists of
nodules.

Claim 7 (currently amended): ~~The article of Claim 1~~
An article of manufacture comprising a hydrophobic
polymeric substrate having an adherent, firmly attached
hydrophilic coating of a graft copolymer of solubilized
starch, wherein said coating has a thickness of
approximately 1 micrometer or less.

Claim 8 (original): The article of Claim 1, wherein
said hydrophobic polymeric substrate is a film or sheet.

Claim 9 (original): The article of Claim 1, wherein
said hydrophobic substrate is a three-dimensional object.

Claim 10 (currently amended): The article of Claim 1, wherein said hydrophobic polymeric substrate is a material selected from the group consisting of polyethylene, polypropylene, polystyrene, polyester, and polyamide.

Claim 11 (original): The article of Claim 1, wherein said hydrophobic polymeric substrate is a material comprising polyethylene.

Claim 12 (original): The article of Claim 1, wherein said starch is selected from the group of corn starch, wheat starch, rice starch, sorghum starch, potato starch, cassava starch, tapioca starch and flours comprising said starches.

Claim 13 (original): The article of Claim 1, wherein said starch is selected from the group of waxy starch, high amylose starch, and a starch comprising about 25% amylose by weight.

Claim 14 (original): The article of Claim 1, wherein said hydrophilic coating on said polymeric substrate is present in an amount of at least about 0.01 mg starch/cm² of polymeric substrate.

Claim 15 (original): The article of Claim 1, wherein said hydrophilic coating on said polymeric substrate is present in an amount of at least about 0.02 mg starch/cm² of polymeric substrate.

Claim 16 (original): The article of Claim 1, wherein said hydrophilic coating on said polymeric substrate is present in an amount of less than about 1 mg starch/cm² of polymeric substrate.

Claim 17 (original): The article of Claim 1, wherein said hydrophilic coating on said polymeric substrate is present in an amount of less than about 0.08 mg starch/cm² of polymeric substrate.

Claims 18-27 (canceled).

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Claim 28 (new): The article of Claim 6, wherein said hydrophobic polymeric substrate is a material selected from the group consisting of polyethylene, polypropylene, polystyrene, polyester, and polyamide.